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The bolstering effect of conceptual priming on psychological help-seeking attitudes in men

Omar Yousaf (corresponding author) and Aneka Popat

Omar Yousaf
Department of Psychology
King's College London
5th Floor Bermondsey Wing, Guy's Campus
London, SE1 9RT

Aneka Popat
St George's, University of London
Cranmer Terrace
Tooting
London, SW17 0RE
Email: m1000780@sgul.ac.uk

Omar Yousaf is now at the Department of Psychology, University of Bath, Wessex House
6.3, Claverton Down, Bath, U.K. E-mail: o.yousaf@bath.ac.uk.

Abstract

Background: It is a well-established finding that men are often unwilling to engage with mental health services, and that they hold negative attitudes toward psychological help-seeking. Consequently, men's psychological problems often remain untreated, which in turn can compromise their quality of life. **Aims:** The present experiment addresses this problem using a conceptual priming paradigm from social psychology called *Scrambled Sentence Test* as an intervention to change men's negative attitudes toward psychological help-seeking. **Method:** The *Scrambled Sentence Test* works by asking participants to unscramble sentences that unbeknownst to them include priming words – in this case, openness and communication-related words. Sixty-nine men completed the task (with priming or control words) under the instructions of a condition-blind experimenter. **Results:** The primed group showed more positive attitudes ($Mdn = 56.5$) toward seeking psychological help compared to controls ($Mdn = 40.0$), $p < 0.01$; $r = .38$. **Conclusion:** The findings are the first to suggest that conceptual priming of this kind can be used as an effective and time-efficient intervention by mental health professionals to encourage men to seek help for psychological problems.

Keywords: mental health; priming; attitude change; help-seeking; men.

Men's reluctance to seek professional psychological help is well-established in the literature (Blazina & Watkins, 1996; Good, Dell, & Mintz, 1989; Good & Wood, 1995; Johnson, Oliffe, Kelly, Galdas, & Ogrodniczuk, 2012; Mackenzie, Gekoski, & Knox, 2006; Steinfeldt, Steinfeldt, England, & Speight, 2009), and the rates of men's psychological help-seeking are significantly lower than women's (Andrews, Issakidid, & Carter, 2001). It has been suggested that men's lower help-seeking propensity compared to women is (Moller-Leimkuhler, 2002), at least in part, due to their subscription to traditional masculinity norms which dictate that men should not express negative feelings or be vulnerable to psychological distress (O'Loughlin et al., 2011; Rochlen et al., 2010). Moreover, previous work has shown that men hold more negative attitudes toward seeking psychological help, compared to women (Ang, Lim, & Tan, 2004; McCusker & Galupo, 2011). While men also have other barriers to help-seeking (e.g., disinclination to express emotions/concerns about health, embarrassment, and anxiety and fear about potentially serious illness; for a systematic review of men's medical and psychological help-seeking barriers, see Yousaf, Grunfeld, & Hunter, 2014), traditional masculinity attitudes is one of the most recurring barrier .

To counter such non-adaptive attitudes in men, research into information-based interventions aimed at changing men's attitudes and behaviour regarding psychological help-seeking has been carried out recently. For example, internet-based male-sensitive brochures on depression have been developed in order to influence men's attitudes toward counselling (Hammer & Vogel, 2010). More recently, an experimental mass-media video intervention was used to successfully change men's attitudes toward psychological help-seeking in the positive direction (Demyan & Anderson, 2012). The intervention consisted of a 2-minute help-seeking announcement in the style of a TV commercial, shown to participants a total of nine times over two sessions held one week apart. While this study has encouraged further

experimental work in this area, it has two limitations that will be addressed in the present investigation. First, the intervention required participants to visit the research venue twice to view longer segments of videos in which the key 2-minute announcements were embedded, in addition to doing distraction tasks on irrelevant topics. Hence, each participant took around two hours to complete the intervention, which seems more than necessary. Second, the authors did not mention in their paper whether the experimenter was blind to the conditions. Indeed, previous research on priming has shown that an unblinded experimenter can unconsciously alter participants' behaviour in the desired direction (Doyen, Klein, Pichon, & Cleeremans, 2012).

In recent years, social psychologists have explored the use of less time-consuming techniques of *priming* (i.e., the activation of a given concept in the mind of the participant in order to change their behaviour on a subsequent task) in different health-related contexts, such as vaccination use and cardiovascular diseases, to encourage a more adaptive lifestyle (Gerend & Sias, 2009; Ma, Dollar, Kibler, Sarpong, & Samuels, 2011; Oyserman, Yoder, & Fryberg, 2007). As is the case within the general priming literature (Bargh & Chartrand, 2000), these priming studies in the applied area of health have mainly measured behaviour or behavioural intentions, showing that these can be altered as the result of conceptual priming. However, whether these priming effects are accompanied by a shift in attitudes remains unexplored within the health context. The fact that priming operates outside of the participants' awareness may mean that any behavioural change is not mediated through an attitude change, but instead occurs as a knee-jerk reaction, or an ideomotor effect, to the conceptual priming. Measuring the attitudinal consequences of conceptual priming can give us a clearer idea of whether individuals internalise the primed concept.

The Present Investigation

We tested whether conceptual priming could be used to increase the favourability of men's attitudes toward seeking psychological help. More specifically, we investigated whether concepts related to openness and communication could result in men becoming more amenable to the idea of speaking to a mental health professional. We decided to use a supraliminal (i.e., one that occurs above the threshold of conscious awareness) priming paradigm known as the Scrambled Sentence Test (Bargh & Barndollar, 1996; Costin, 1969; Srull & Wyer, 1979) because previous research has shown that supraliminal priming techniques like this one have a stronger effect than subliminal priming techniques (Bargh & Chartrand, 2000). This paradigm works by asking participants to unscramble some jumbled up sentences (e.g., 'went boy car to the') which contain key priming words that activate a given concept in the mind of the participant. Next, the participant is asked to engage in a seemingly unrelated task, during which the experimenter measures the effect(s) of the priming. Hence, this technique is referred to as *conceptual priming* because the given concept that is primed is expected to influence subsequent cognitive and behavioural activities. Even though the technique is supraliminal, the primed concept should not be allowed to be actively elaborated by the subject because this can cancel out any priming effects (Bargh & Chartrand, 2000). Therefore, the priming task is usually disguised as a task that is irrelevant to the subsequent task, and subjects' awareness of any link between the priming and the subsequent task (which is usually the dependent variable) is checked afterwards. In the present investigation, we hypothesised that primed participants would show more positive attitudes toward psychological help-seeking, compared to unprimed participants.

Method

Participants

Sixty-nine men, ranging in age from 18 to 65 years ($M = 35.30$, $SD = 12.08$), took part in the experiment. Participants were recruited using circular emails to staff and students at two different London universities, and using advertisement on social networking sites. To increase the diversity of the sample, workplaces such as schools, offices and leisure centres were also targeted. There were 34 participants in the primed group (mean age = 37.00, $SD = 12.36$, of whom 17 were British, 9 Asian, and the rest other ethnicities, and 28 professionals and 6 students) and 35 in the control group (mean age = 33.66, $SD = 11.74$, of whom 14 were British, 11 Asian, and the rest other ethnicities, and 26 professionals and 9 students).

Materials

Scrambled Sentence Test. This task consisted in unscrambling 18 sentences. In the primed condition, 14 of the sentences contained communication-related priming words: ‘conversation’, ‘communication’, ‘relate’, ‘told’, ‘share’, ‘speak’, ‘connection’, ‘voice’, ‘talk’, ‘expressing’, ‘speech’, ‘articulated’, ‘words’ and ‘verbalise’, while the remaining four sentences were neutral sentences. In the control condition, the four neutral sentences from the primed condition were used, along with another 14 neutral sentences. The sentences in the primed condition exactly matched the control sentences on the number of words per sentence; the average length of the sentences in both conditions was 7.33 words (12 of the sentences were 7 words long, and 6 of the sentences were 8 words long).

Inventory of Attitudes Toward Seeking Mental Health Services (IASMHS; (Mackenzie, Knox, Gekoski, & Macaulay, 2004)). This 24-item measure has three subscales:

Psychological openness, help-seeking propensity, and indifference to stigma. Each subscale includes items assessing components of the Theory of Planned Behavior (Ajzen, 1991), which was developed to predict behaviour and behavioural intentions, based on attitudes and other predictors. Participants indicated their level of agreement with each statement using a five-point Likert scale (0 = 'Disagree', 4 = 'Agree') where all items except items 2, 5, 8, 10, 13, 15, 19 and 22 are reverse scored. The maximum possible score is 96, whilst the minimum possible score is 0. The scale has shown high internal reliability, with a Cronbach's alpha of $\alpha = 0.87$ (Mackenzie et al., 2004).

Procedure

Packs containing all the questionnaires were made before each session, and consisted (in order) of an information sheet, two consent forms, the priming or control scrambled sentence test, the IASMHS, and a sheet containing demographic questions. The packs were stapled together and then shuffled, and the first three pages of each pack were identical, allowing the experimenter to be blind to the condition of the participants. A benefit of using the packs was that interaction between the experimenter and the participant was minimized, reducing the risk of any random error caused by communication between the experimenter and the participants.

The experimenter introduced the study as 'a study of attitudes and beliefs about health' involving a 'written task' (i.e., the Scrambled Sentence Test) and a few short questionnaires. Participants were given the incentive of four £25 gift card prize draws. The information sheet stated the broad purpose of the study (without mentioning priming or help-seeking) and the estimated time taken to complete the study (i.e., 25 minutes). After signing the consent form, half of the participants were randomly assigned to the priming group, and

half to the control group. Their allocation was determined by the shuffled pre-prepared packs, half of which contained the priming task, while the other half contained the control task. Participants were instructed to complete the Scrambled Sentence Test as quickly as possible, and the time taken to complete the task was noted openly by the experimenter. The reason for timing the task was to motivate them to complete the task quickly, thereby preventing them from deeply processing the priming words and realising the theme of the priming concept.

Immediately afterwards, participants completed the IASMHS, followed by some demographic questions. On completion of the study, a funneled debriefing (Bargh & Chartrand, 2000) was conducted in order to ascertain whether participants were aware of the theme of the priming, or of the relationship between the priming task and the IASMHS. Participants were asked the following questions: *'What do you think the purpose of this study is?'*, *'What do you think the study is trying to measure?'*, *'Do you think that the different tasks that you did were related in any way? If so, how?'*, *'Did anything you did on one task affect what you did on any other task? If yes, how?'*, *'When you did the first task (making grammatical sentences), did you notice any pattern or theme to the words and sentences? If yes, please describe.'* *'How many words from the **first task** do you remember now? Please write anything you remember.'* Following this, a detailed explanation of the purpose of the study was given, and participants were thanked for their participation.

Results

For the data analysis, outliers were defined as values below or above $2.2 \times \text{IQR}$ from the 25th and 75th percentile (Hoaglin & Iglewicz, 1987), and using this method no outliers were detected in either group. The results of the Kolmogorov-Smirnov test of normality showed that the IASMHS scores, the number of words recalled, and the time taken to

complete the Scrambled Sentence Test violated the parametric assumption of normality. Therefore, the Mann-Whitney test was used to compare the two groups. No significant differences were noted between the control ($Mdn = 769s$) and primed ($Mdn = 746s$) groups in the time taken to complete the Scrambled Sentence Test, $U = 578.5$, $p = 0.84$, $r = 0.02$. Similarly, no significant differences were found between the control ($Mdn = 0.5$) and primed ($Mdn = 0.0$) groups in the number of words recalled by the participants, $U = 549.5$, $p = 0.71$, $r = 0.05$. The fact that no significant differences were observed confirmed that these three variables were unlikely to have confounded the experimental manipulation.

As predicted, a significant difference was observed in the IASMHS scores of the primed group ($Mdn = 56.5$) compared to the control group ($Mdn = 40.0$), $U = 331$, $p < .01$, $r = 0.38$. The funneled debriefing revealed that none of the participants in the primed group could identify a relationship between the Scrambled Sentence Test and subsequent questions. However, eight of the participants remembered 1-3 of the 14 priming words, while the rest did not remember any of these.

Discussion

The present investigation has shown that conceptual priming using the Scrambled Sentence Test with openness and communication-related words can bring about a positive shift in attitudes toward use of mental health services in men. Hence, the findings suggest that the behavioural consequences of priming in previous research using the Scrambled Sentence Test (Bargh & Chartrand, 2000; Bargh, Chen, & Burrows, 1996; Doyen et al., 2012; Gerend & Sias, 2009) are likely to be accompanied by attitudinal changes. Moreover, the present experiment employed an extended funneled debriefing and checks to ensure that the primed group did not remember any of the key priming words. The fact that only eight participants

out of 34 remembered 1-3 words (but failed to identify the primed theme of openness and communication) strongly supports the idea that priming operates below conscious awareness. In addition, our monitoring of the time taken to complete the priming task showed no difference between the two groups, indicating that the difficulty of the task and the processing depth of the materials were matched in the two conditions. This was also reflected in the number of words from the priming task that were remembered by participants from both groups where no difference was observed. Another important design element of the present experiment was that the experimenter was kept blind throughout the interaction with the participants. This eliminated the possibility of a priming effect caused, consciously or otherwise, by the experimenter (Doyen et al., 2012). These methodological improvements, combined with the attitude change effect offer encouragement to the research area of interventions for men's help-seeking behaviour.

Implications and Limitations

Research on priming and help-seeking has implications for the design of psychological interventions, and has already been found to play a role in successful public health campaigns (Ma et al., 2011). In recent years, researchers and health-policy makers have debated whether the time patients spend in the waiting room can be utilized for brief 'waiting-room interventions'. Such interventions have already been implemented in clinics to prevent sexually transmitted infections through video-based information (Harshbarger et al., 2012) but have not been experimentally tested. Based on our findings that priming openness and communication can change attitudes toward help-seeking, further research is warranted to test whether this might increase actual reporting of psychological concerns in men. For example, priming materials that appeal to men could be placed in general practitioners' waiting rooms. Men, when subsequently in contact with a health professional during the

examination, may then be more likely to report psychological issues that would otherwise go unreported. More generally, men could be primed in other contexts, such as men's magazines (e.g., health, fitness, and hobby-related ones), advertisements, and TV shows. Such a pervasive approach could also reinforce and maintain the pro-help-seeking attitude changes.

A limitation of the present study is that it does not show whether the attitudinal shift caused by the priming endures over time. Also, the lack of a pre-manipulation measure of attitudes does open up for the possibility that there were baseline differences between the two groups, however, the high significance of the finding provides sufficient support to our interpretation. Another limitation is that it does not establish whether the attitude change is accompanied by a behavioural change. While previous experiments on priming using the Scrambled Sentence Test have shown behavioural effects, the concepts that were primed were not related to opening up about personal problems and vulnerabilities. It, therefore, remains to be seen whether the desired behaviour of openness about personal problems can be primed using this paradigm. Such a finding would corroborate previous research on the Scrambled Sentence Test, as well as to attitude-behaviour theories. For example, the theory of planned behaviour (Ajzen, 1991) posits that behaviour can be predicted partially through attitudes. If studies find a behavioural effect of the openness priming used in this study, it would add support to the theory. Future research should include behavioural measures to address this interesting question.

In conclusion, the findings are the first to demonstrate that more favourable attitudes toward psychological help-seeking can be brought about through the Scrambled Sentence Test. Given that men's psychological help-seeking rates are suboptimal, there is a need to develop targeted interventions so that men who are in need of psychological help can be encouraged to seek it. We have presented one such priming paradigm that seems promising.

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